

REMARKS

In response to the Office Action mailed on June 17, 2003, claims 1, 9, 12 and 17 are amended, claims 24-80 are withdrawn from consideration in view of an election requirement, and claims 81-100 are added; as a result, claims 1-23, 81-100 are now pending in this application.

Claim Objections

Claim 17 was objected to because the "the metal layer" should read "the first metal layer." Claim 17 was amended to make the correction.

§102 Rejection of the Claims

Claims 1, 2, 3, 6, 9, 10, 11, 13-14, 17, 19, 23 were rejected under 35 USC § 102(b) as being anticipated by Nakazato et al. (U.S. 5,952,692, "Nakazato").

Concerning claims 1 and 9:


Claims 1 and 9 were amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Nakazato, a teaching or suggestion of a low tunnel barrier intergate insulator separated from the control gate by a first metal layer as recited, among other things, in claims 1 and 9.

Particularly, Applicant is unable to find in cited Figures 5 and 10 of Nakazato a metal layer in the tunnel barrier-control/floating gate configuration. Also, Applicant is unable to find in cited Figure 13 of Nakazato a metal layer separating a control gate from an intergate insulator.

Applicant respectfully requests reconsideration and allowance of claims 1 and 9.

Concerning claims 2, 3, 6, 10, 11, 13-14:

Claims 2, 3, and 6 ultimately depend on base claim 1 and claims 10, 11, 13 and 14 ultimately depend on base claim 9. Claims 2, 3, 6, 10, 11, 13 and 14 are believed to be allowable at least for the reasons stated above for the base claims, namely claims 1 and 9. Applicant respectfully requests reconsideration and allowance of claims 2, 3, 6, 10, 11, 13 and 14.



Concerning claim 17:

Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Nakazato :

- a first metal layer formed on the polysilicon floating gate;
- a metal oxide intergate insulator formed on the first metal layer;
- a second metal layer formed on the metal oxide intergate insulator; and
- a polysilicon control gate formed on the second metal layer,

as recited in part in claim 17. In particular, Applicant is unable to find the combination of polysilicon layers, metal oxide intergate insulator layers and metal layers as recited in the claim in the cited figures and cited portions of the specification. Applicant respectfully requests reconsideration and allowance of claim 17.

Concerning claims 19 and 23:


Applicant respectfully traverses the rejection. Claims 19 and 23 depend on claim 17 and are believed to be allowable at least for the reasons stated for claim 17. Applicant requests reconsideration and allowance of claims 19 and 23.

Claims 1, 4, and 9-10 were rejected under 35 USC § 102(e) as being anticipated by Kim et al. (U.S.6,475,857, "Kim").

Applicant does not admit that Kim is prior art, and reserves the right to swear behind it at a later date. Nevertheless, Applicant respectfully submits that the claims are distinguishable over Kim for the reasons argued below.

Concerning claims 1 and 9:

Claims 1 and 9 were amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Kim, a teaching or suggestion of a low tunnel barrier intergate insulator separated from the control gate by a first metal layer as recited, among other things, in claims 1 and 9. Particularly, Applicant is unable to find in cited Figures 2, 5B or 8B of Kim a metal layer in the tunnel barrier-control/floating gate configuration. Applicant respectfully requests reconsideration and allowance of claims 1 and 9.



Concerning claims 4 and 10:

Applicant respectfully traverses the rejection. Claims 4 and 10 ultimately depend on base claims 1 and 9 respectively and are believed to be allowable at least for the reasons stated for those claims. Applicant requests reconsideration and allowance of claims 4 and 10.

§103 Rejection of the Claims

Claim 8 was rejected under 35 USC § 103(a) as being unpatentable over Nakazato et al. (U.S. 5,952,692).

Applicant respectfully traverses the rejection. Claim 8 depends on claim 1 and is believed to be allowable at least for the reasons stated for claim 1. Applicant requests reconsideration and allowance of claim 8.


Allowable Subject Matter

Claims 5, 7, 12, 15-16, 18, 20-22 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant acknowledges the allowable subject matter. The claims were rewritten in independent form as new claims. The subject matter of claim 5 and its base claim prior to this paper corresponds to new claim 88. The subject matter of claim 7 and its base claim prior to this paper corresponds to new claim 89. The subject matter of claim 12 and its base claim prior to this paper corresponds to claim 90. The subject matter of claims 15 and 16 and their base claim prior to this paper corresponds to claims 95 and 96. The subject matter of claim 18 and its base claim prior to this paper corresponds to claim 97. The subject matter of claims 20-22 and their base claim prior to this paper corresponds to claims 98-100.

In addition, new claim 81 incorporates some subject matter from claim 2, new claims 82-84 incorporate some subject matter from claim 4, and new claims 91-94 incorporate some subject matter from claim 10. New claims 85-87 incorporate subject matter found generally in the specification. Especially, see page 9 lines 5-7 of the specification.

Entry and examination of claims 81-100 are requested.



Request for Interview

Applicant's representative requests an interview with the Examiner to discuss the rejection to claim 17 in light of the indicated allowable subject matter of claim 7.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 349-9587) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

LEONARD FORBES ET AL.

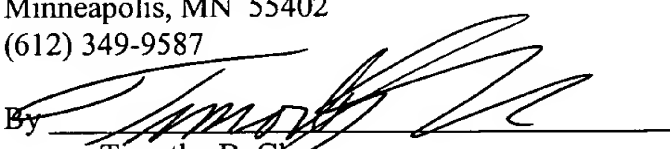
By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 349-9587

Date

17 Oct 2003

By


Timothy B. Clise
Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 17th day of October, 2003.

Name

Amy Moriarty

Signature

